Claim 20, line 1, change "waveguides" to --waveguide--.

REMARKS

Claims 1-20 were presented for examination. Claims 7, 8, 11 are indicated as allowable. Claims 1, 3, 6, 10-12, 16-18, 20 have been amended. Reconsideration is respectfully requested.

A new declaration complying with 37 CFR 1.67(a) is submitted herewith.

Claims 1, 12-17 are rejected under 35 USC 112, second paragraph for insufficient antecedent basis for certain terms, primarily relating to the channel. The source optical channel is referred to only as the source channel or the optical channel in some instances. While it should be clear that the same element is being referred to, since there is only one channel element in the claims, the variation in terminology for the element may be somewhat confusing. Therefore, for clarity, the claims are amended to always recite the element as the source optical channel. In Claim 16 chamber should have been channel and in Claim 17 the reference should have been to the source coupling system. Other minor informalities in the claims are also corrected. Therefore it is submitted that the rejection has been obviated.

Claims 1-3, 5-6, 12-20 are rejected under 35 USC 103(a) over Dassanayake in view of Applicant's Fig. 1 prior art and Davenport. This rejection is respectfully traversed.

Dassanayake and Davenport both show systems similar to Applicant's Fig. 1 prior art. In all three prior art systems, the light is produced outside the waveguide and then coupled into the waveguide for transmission. Thus all three references face the problem of coupling the light into the waveguide which is described generally by Applicant at page 3 and more specifically with respect to Fig. 1 at page 6. Applicant's claimed invention is directed at this problem.

None of the references teach or suggest producing the light inside the waveguide itself as done by Applicant. Thus the combination of references, each of which couple light

from an external source into a waveguide, would not lead one to Applicant's claimed invention of placing the light source inside the waveguide.

The Examiner states that Applicant's prior art Fig. 1 shows an optical channel 18 that allows light to be internally reflected and corresponds to Applicant's source channel. This is correct to the extent that both channel 18 and Applicant's source optical channel are waveguides. However, it is clear that light source 11 is external to channel 18.

The Examiner then states that Dassanayake Fig. 1 shows a housing 10 with a chamber 12 which correspond to Applicant's source optical channel and cavity. This is clearly incorrect. Dassanayake Fig. 1 merely illustrates another example of Applicant's Fig. 1 prior art system. Housing 10 is not the same as Applicant's source optical channel. Applicant's source optical channel is a waveguide. Throughout the specification Applicant has defined the optical channel as a waveguide, e.g. page 6, lines 1-2; page 7, lines 5-6. The housing 10 is clearly not a waveguide; it does not utilize the phenomenom of total internal reflection. Rather, housing 10 is merely an example of the reflector 12 of Applicant's Fig. 1. As described at col. 2, lines 4-13, housing 10 has a reflecting surface 16 made of aluminum or other reflecting material. The only optical channel or waveguide in Dassanayake is the ring 22 of light pipes 28, and the light from external bulb 24 is coupled into light pipes 28 by reflector 16 of housing 10.

The Examiner states that Davenport teaches the use of a HID metal halide light source as a centralized light source for illumination with quartz light guides merged into its outer surface. While this description may be per se correct, the Davenport system is clearly distinguishable from Applicant's claimed invention. The light guides 22A-E are attached to the outer surface of light source 20. Thus the light source is again external to the light guide, as is the case for Applicant's Fig. 1 prior art and Dassanayake. Lamp 20 has a reflective coating 25 (except at the light pipes) so that light is kept internally so that it may be coupled into the light pipes 22A-E. Thus coating 25 forms a reflector like reflector 12 of Applicant's Fig. 1 or housing 10 of Dassanayake. Clearly light source 20 is not internal to

light pipes 22A-E, nor can it be, since it is much larger in size. Multiple light pipes are connected to a single source. While Davenport may show an optical carrying device 30A formed of fiber bundles 381-N connected to light pipe 22A in Fig. 4(b), there is no suggestion that light pipe 22A should contain a light source internally to produce a structure similar to Applicant's.

The Examiner concludes that it would be obvious to combine the structure of Dassanayake with Applicant's prior art and Davenport "because by simple rearrangement of parts it would allow to deduce and construct the claimed source coupling system." This conclusion is clearly erroneous and unsupportable. The Examiner has taken three references which are essentially the same in having an external light source whose light is coupled into a waveguide using a reflector, and by mischaracterizing Dassanayake as having the source in a waveguide, argued that one skilled in the art would produce Applicant's claimed invention. However, the only result from the combination of the three references is the same result as from any one alone since they are all essentially the same, i.e. a system with an external source with light coupled into a waveguide or light channel. This is totally different from Applicant's claimed system which has a source optical channel, a cavity formed in the channel, and a light source in the cavity.

Claim 1 recites a source optical channel with a cavity formed therein and light substantially contained therein, which is not taught or suggested by the references which are all examples of the prior art described at page 3, lines 11-13 in which an optical reflector focuses or concentrates the light flux from the source onto the interface of the fiber optic system. Applicant's optical channel is a waveguide so that the light does not have to be input into the channel because it is produced in the channel itself and is propagated therein without significant loss by total internal reflection to an attached distribution system. While these characteristics of the claimed channel are implicit, to further emphasize the distinction between Applicant's invention and the prior art, Claim 1 has been amended to

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add the recitation that the channel guides light by TIR and contains light by TIR. Therefore it is submitted that the rejection has been obviated.

Claims 4, 9, 10 are rejected under 35 USC 103(a) as above and further in view of El-Hamamsy which shows an electrodeless HID lamp. This rejection is respectfully traversed. Since the base rejection fails, the dependent claims should also be allowable. If the El-Hamamsy lamp is used in any of the three previous references, the result would be a system with an electrodeless HID lamp external to the optical channel, and not within the channel as taught and claimed by Applicant.

The allowability of Claim 7, 8, 11 is acknowledged.

Accordingly it is submitted that all claims are in condition for allowance which is earnestly solicited. If any impediment should remain which can be resolved by telephone, please call Applicant's Attorney at (510) 486-4534.

Respectfully submitted,

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